

PATENT
SZS&Z Ref. No.: IO031110PUS
Atty. Dkt. No. INFN/SZ0017

REMARKS

This is intended as a full and complete response to the Office Action dated October 24, 2005, having a shortened statutory period for response set to expire on January 24, 2005. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1, 3, 5-21, 23 and 25-30 are pending in the application. Claims 1, 3, 5-21, 23 and 25-30 remain pending following entry of this response.

Claim Rejections - 35 USC § 112

Claims 1, 3, 5-21, 23 and 25-30 are rejected under 35 U.S.C. Sec. 112, first paragraph as failing to comply with the enablement requirement. Applicants begin by first reviewing the 35 U.S.C. § 112 ¶ 1 enablement requirements. Applicants then proceed to respond to Examiner's enablement arguments.

35 U.S.C. § 112 ¶ 1 Enablement Requirements

35 U.S.C. § 112 ¶ 1 states that the specification shall contain the manner and process of making and using the claimed invention, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which the claimed invention pertains to make and use the claimed invention. The test of enablement is whether one reasonably skilled in the art could make or use the claimed invention from the disclosures in the patent coupled with information known in the art without undue experimentation. See MPEP § 2164.01, citing *United States v. Telectronics*, 857 F.2d 778, 785 (Fed. Cir. 1988). However, it is well-settled that the enablement requirement does not require a patent to teach, and preferably omits, what is well known in the art. See *id.*, citing *In re Buchner*, 929 F.2d 660, 661 (Fed. Cir. 1991).

The amount of guidance or direction needed to enable the claimed invention is inversely related to the amount of knowledge in the state of the art as well as the predictability of the art. See MPEP § 2164.03. The Examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention. See MPEP § 2164.04. Any conclusion of nonenablement must be based on the evidence as a whole. See MPEP § 2164.01(a) citing *In re Wands*, 858 F.2d 731,

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737 (Fed. Cir. 1988). Specifically, Examiner must consider all of the evidence related to each of the factors presented by *In re Wands*. See *id.*

Response to Examiner's Enablement Arguments

1. The Examiner's Rejection is Procedurally Insufficient.

Applicants respectfully submit that the Examiner's nonenablement rejection is procedurally insufficient because the Examiner has not considered all of the evidence related to each of the factors presented by *In re Wands*. MPEP § 2164.01(a) specifically states that the Examiner's analysis must consider all the evidence related to each of the *In re Wands* factors, and any conclusion of nonenablement must be based on the evidence as a whole. See MPEP § 2164.01(a). Here, for example, the Examiner has failed to establish the level of ordinary skill in the art. *Id.* Further, Examiner has failed to discuss the level of predictability in the art. *Id.* Finally, Examiner has failed to consider information known in the art. *Id.* Because Examiner has not considered the above factors and all of the evidence relating to the above factors, Applicants respectfully submit that Examiner's rejection is improper and request that the objection be withdrawn. See MPEP § 2164.04.

2. The Examiner's Rejection is Substantively Insufficient

Applicants further submit that the Examiner's nonenablement rejection is also substantively insufficient. For Example, the Examiner states on Pages 2-3 of the Office Action Dated October 24, 2005 (hereinafter, *Office Action*) "it is not understood what type of mode register 320 really is and how it can store two bits of temperature information". Applicants respectfully submit that mode registers used to store bits of information are well known to those skilled in the art.

As another example, the Examiner states that it is not understood what the b'1000' (line 2 of paragraph [0036]), b'0100' (line 9 of paragraph [0036]), b'0010' and b'0001' (line 13 of paragraph [0036] really are. *Office Action*, Page 3, Para. 1. However, as well known to those skilled in the art, the "b" preceding the number "1000" is nomenclature indicating that the given number ("1000") is a binary number (e.g., a

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number with base two). Applicants submit that such nomenclature is well known to those skilled in the art.

The Examiner also states that the feature "wherein obtaining temperature information comprises reading one or more bits in a mode register" as recited in claim 1, the features as recited in claims 3, 16-17 and 23 are not described in the specification. *See Office Action*, Page 3, Para. 2. However, the Applicants' specification, in at least Para. [0031], for example, describes that "the temperature information used to vary generated voltages may also be obtained from [...] mode registers". Thus, the specification does indeed describe the claimed subject matter.

The Examiner further states that "the internal temperature sensor is not shown in the drawings of the present invention". *See Office Action*, Pg. 2, Para. 4. However, an on-chip thermometer is clearly shown in Fig. 5, Item 500, and described at least, for example, at Page 10-13, Paras. [0039-0044] of the specification. The Examiner also states that "it is not understood how the device temperature may be provided as bits in a mode register containing externally supplied temperature information". *See Office Action*, Pg. 2, Para. 3. However, a mode register written to by a memory controller or processor (utilized, e.g., with temperature compensated self-refresh (TCSR)), is described at least, for example, at Page 8, Para. [0031] of the specification. Thus, the specification does indeed describe the subject matter identified by the Examiner.

3. Summary

In summary, Applicants submit that the Examiner errs in rejecting the pending claims for nonenablement. Applicants respectfully submit that the rejection is both procedurally and substantively insufficient, as described above. As such, withdrawal of the rejection is respectfully requested.

4. Request for Interview

Furthermore, if the Examiner wishes to maintain the rejection, the Applicants request a telephonic interview with the Examiner and the Examiner's supervisor to discuss and resolve any further issues.

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Claim Rejections - 35 U.S.C. § 103

Claims 1, 3, 5-21, 23 and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Alexander et al.* (US 6,809,978, hereinafter *Alexander*).

The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. See MPEP § 2142. To establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP § 2143.

The present rejection fails to establish at least the third criteria. For example, *Alexander* does not disclose a mode register for supplying temperature information, or obtaining temperature information therefrom, as recited in independent claims 1 and 21. While the Examiner indicates mode registers are illustrated in FIG. 6 of *Alexander*, there is no teaching such mode registers include temperature information and, therefore, certainly no teaching temperature information from a mode register is used to vary internally generated voltages, as claimed. Accordingly, withdrawal of the rejection is respectfully requested.

The Examiner also states that "the control system CTRL 366 [...] can be obviously the control logic including mode register in Fig. 6". See *Office Action*, Page 4, Para. 1. However, Applicants submit that there is no such teaching in *Alexander*. Indeed, in *Alexander*, Fig. 6 is labeled as prior art, whereas the cited control system 366 is depicted in Figure 7. Figure 7 is described in *Alexander* as "a voltage control system 301 according to the present invention". Thus, *Alexander* itself distinguishes between the separate elements cited by the Examiner, identifying the mode registers in Figure 6 as prior art while the separate control system 366 is identified separately as a portion of the invention. See Page 3, Lines 32-36; Figures 6-7. Also, separate labels are applied to the separate, depicted items, indicating that the cited items are indeed separate circuits and not combined as asserted by the Examiner. See Figures 6-7. Thus, the control system CTRL 366 does not include the mode register of Fig. 6 as asserted by

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the Examiner. Furthermore, as described above, there is no teaching in *Alexander* that the cited mode registers in Fig. 6 include temperature information and, therefore, certainly no teaching temperature information from a mode register is used to vary internally generated voltages, as claimed. Accordingly, withdrawal of the rejection is respectfully requested.

The Examiner's rejection also states that "since the subject matter of the present invention as recited in claims 1, 3, 5-21, 23 and 25-30 are not understood as rejected under 35 USC 112, first paragraph, as set forth above, therefore, all the remaining features as recited in claims 1, 3, 5-21, 23 and 25-30 are also rendered obvious under 35 USC 103(a) over *Alexander*". See Office Action, Page 4, Para. 2. Thus, the Examiner appears to premise the 35 USC 103(a) rejection upon the Examiner's 35 USC 112, first paragraph rejection. However, as stated above, Applicants submit that the Examiner's rejection under 35 USC 112, first paragraph is both procedurally and substantively insufficient. As such, Examiner's 35 USC 103(a), which is premised upon the rejection above under 35 USC 112, first paragraph, is also insufficient. Accordingly, withdrawal of the rejection is respectfully requested.

Double Patenting

Claims 1, 3, 5-21 and 23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-28 of copending Application No. 10/716,762. This is a provisional obviousness-type double patenting rejection because the claims of the cited, copending Application have not in fact been patented.

Because both of the obvious-type double patenting rejections are provisional, Applicants will defer responding to the rejection on the merits until the rejections ripen into actual obvious-type double patenting rejections and the claims of the present application are otherwise in condition for allowance.

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Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted, and



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